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<110> E. I. du Pont de Nemours and Company

<120> Plant Catabolite Repression Genes

<130> BB1316

<140> US/09/857,525

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<150> 60/112,564

<151> 1998-12-16

<160> 22

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<211> 1576

<212> DNA

<213> Zea mays

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 <213> Zea mays

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 Gly Glu Phe Gly Ile Val Asn Thr Leu Tyr Leu Thr Arg Glu Tyr Asn
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 Gln Ile Asn Thr Leu Ser Ser Pro Ser Thr Pro Gly Ser Arg Met Asn
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 Met Asp Val Asp Asn Glu Asn Phe Gln Arg Thr Val Thr Leu Ser Asp
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 Gly Thr Val Ser Glu Gly Thr Leu Arg Val Ser Glu Ala Ala Ile Gln
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 Ile Ser Arg Cys Arg Val Ser Glu Tyr Leu Asn Leu His Thr Cys Tyr
 115 120 125
 Asp Leu Leu Pro Asp Ser Gly Lys Val Ile Ala Leu Asp Ile Asn Leu
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Pro Val Lys Gln Ser Phe His Ile Leu His Glu Gln Gly Ile Pro Val
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 Ala Pro Leu Trp Asp Ser Phe Arg Gly Gln Phe Val Gly Leu Leu Ser
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 Pro Leu Asp Phe Ile Leu Ile Leu Arg Glu Leu Glu Thr His Gly Ser
 180 185 190
 Asn Leu Thr Glu Glu Gln Leu Glu Thr His Thr Ile Ser Ala Trp Lys
 195 200 205
 Glu Ala Lys Arg Gln Thr Asn Gly Arg Asn Asp Ser Gln Trp Arg Pro
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 Gln Gln His Leu Val His Ala Thr Pro Tyr Glu Ser Leu Arg Asp Ile
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 Gly Asn Leu Pro Ile Leu Asn Gln Pro Val Cys Ser Ile Pro Leu Gly
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 Ser Trp Val Pro Lys Ile Gly Asp Leu Asn Ser Arg Pro Leu Ala Met
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<211> 2149
<212> DNA
<213> Oryza sativa

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 <212> PRT
 <213> Oryza sativa

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 Pro Met Ser Pro Val Glu Gly Cys Pro Thr Val Phe Gln Ala Ile Cys
 50 55 60
 Ser Leu Ser Pro Gly Ile His Gln Tyr Lys Phe Cys Val Asp Gly Glu
 65 70 75 80
 Trp Arg His Asp Glu Arg Gln Pro Thr Ile Thr Gly Asp Tyr Gly Val
 85 90 95
 Val Asn Thr Leu Cys Leu Thr Arg Asp Phe Asp Gln Ile Asn Thr Ile
 100 105 110
 Leu Ser Pro Ser Thr Pro Gly Ser Arg Met Asn Met Asp Val Asp Asn
 115 120 125

Asp Asn Phe Gln Arg Thr Val Ser Leu Ser Asp Gly Ile Ile Gln Glu
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Gly Pro Gln Arg Ile Ser Glu Ala Ala Ile Gln Ile Ser Arg Cys Arg
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Val Ala Asp Phe Leu Asn Gly Gln Thr Gly Tyr Asp Leu Leu Pro Asp
165 170 175

Ser Gly Lys Val Ile Ala Leu Asp Val Asn Leu Pro Val Lys Gln Ser
180 185 190

Phe His Ile Leu His Glu Gln Gly Ile Pro Val Ala Pro Leu Trp Asp
195 200 205

Ser Phe Arg Gly Gln Phe Val Gly Leu Leu Ser Pro Leu Asp Phe Ile
210 215 220

Leu Ile Leu Arg Glu Leu Glu Thr His Gly Ser Asn Leu Thr Glu Glu
225 230 235 240

Gln Leu Glu Thr His Thr Ile Ser Ala Trp Lys Glu Ala Lys Arg Gln
245 250 255

Thr Tyr Ala Arg Asn Glu Gly Ser Trp Arg Ala Asn His His Leu Val
260 265 270

His Ala Thr Pro Tyr Glu Ser Leu Arg Glu Ile Ala Met Lys Ile Leu
275 280 285

Gln Asn Gly Val Ser Thr Val Pro Ile Met Phe Ser Ser Ser Pro Asp
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Gly Ser Tyr Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly Ile Leu
305 310 315 320

Lys Cys Ile Cys Arg Tyr Phe Lys Asn Ser Gln Gly Asn Leu Pro Ile
325 330 335

Leu Ser Gln Pro Val Cys Thr Ile Pro Leu Gly Thr Trp Val Pro Lys
340 345 350

Ile Gly Asp Pro Asn Gly Arg Pro Leu Ala Met Leu Arg Pro Asn Thr
355 360 365

Ser Leu Ser Ala Ala Leu Asn Leu Leu Val Gln Ala Gly Val Ser Ser
370 375 380

Ile Pro Ile Val Asp Asp Asn Asp Ser Leu Leu Asp Thr Tyr Ser Arg
385 390 395 400

Ser Asp Ile Thr Ala Leu Ala Lys Asp Lys Val Tyr Thr His Ile Arg
405 410 415

Leu Asp Glu Met Thr Ile His Gln Ala Leu Gln Leu Gly Gln Asp Ala

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Arg Ser Asp Thr Leu Leu Lys Val Met Glu Arg Leu Ala Asn Pro Gly					
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Val Arg Arg Val Phe Ile Val Glu Ala Gly Ser Lys Arg Val Glu Gly					
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 <213> Oryza sativa

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 35 40 45
 Gly Thr Trp Ser Pro His Thr Gly Lys Ala Ser Asn Arg Gln Leu Arg
 50 55 60
 Thr Ser Arg Pro Ser Thr Pro Leu Asn Ser Cys Leu Asp Leu Leu Leu
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 Glu Asp Arg Val Ser Ser Ile Pro Ile Val Asp Asp Asn Gly Ala Leu
 85 90 95
 Leu Asp Val Tyr Ser Leu Ser Asp Ile Met Ala Leu Gly Lys Asn Asp
 100 105 110
 Val Tyr Thr Arg Ile Glu Leu Glu Gln Val Thr Val Glu His Ala Leu
 115 120 125
 Glu Leu Gln Tyr Gln Val Asn Gly Arg Arg His Cys His Thr Cys Leu
 130 135 140
 Ser Thr Ser Thr Phe Leu Glu Val Leu Glu Gln Leu Ser Ala Pro Gly
 145 150 155 160
 Val Arg Arg Val Val Val Ile Glu Pro Arg Ser Arg Phe Val Gln Gly
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 <212> DNA
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<212> PRT
<213> Glycine max

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 Val Pro Lys Ile Gly Glu Ser Asn Arg Arg Pro Leu Ala Met Leu Arg
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 420 425 430
 Cys Leu Arg Thr Asp Ser Leu His Lys Val Met Glu Arg Leu Ala Ser
 435 440 445
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aaaaaaaaaa aaaaaaaaaa 25
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<210> 10
<211> 492
<212> PRT
<213> Glycine max

<400> 10
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Ala Gly Thr Val Leu Ile Pro Met Arg Phe Val Trp Pro Tyr Gly Gly
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Arg Ser Val Phe Leu Ser Gly Ser Phe Thr Arg Trp Leu Glu Leu Leu
35 40 45
Pro Met Ser Pro Val Glu Gly Cys Pro Thr Val Phe Gln Val Ile Tyr
50 55 60
Asn Leu Pro Pro Gly Tyr His Gln Tyr Lys Phe Phe Val Asp Gly Glu
65 70 75 80
Trp Arg His Asp Glu His Gln Pro Tyr Val Pro Gly Glu Tyr Gly Ile
85 90 95
Val Asn Thr Val Leu Leu Ala Thr Asp Pro Asn Tyr Met Pro Val Leu
100 105 110
Pro Pro Asp Val Ala Ser Gly Asn Ser Met Asp Val Asp Asn Asp Ala
115 120 125
Phe Arg Arg Met Ala Arg Leu Thr Asp Gly Thr Leu Ser Glu Val Leu
130 135 140
Pro Arg Ile Ser Asp Thr Asp Val Gln Ile Ser Arg Gln Arg Ile Ser

145		150		155		160
Ala Phe Leu Ser	Ser His Thr Ala Tyr Glu	Leu Leu Pro Glu Ser Gly				
	165		170		175	
Lys Val Val Ala Leu Asp Val Asp	Leu Pro Val Lys Gln Ala Phe His					
	180	185		190		
Ile Leu His Glu Gln Gly Val Phe Met Ala Pro Leu Trp Asp Phe Cys						
	195	200		205		
Lys Gly Gln Phe Val Gly Val Leu Ser Ala Ser Asp Phe Ile Leu Ile						
	210	215		220		
Leu Arg Glu Leu Gly Asn His Gly Ser Asn Leu Thr Glu Glu Glu Leu						
	225	230		235		240
Glu Thr His Thr Ile Ser Ala Trp Lys Glu Gly Lys Ser Tyr Leu Asn						
	245	250			255	
Arg Gln Asn Asn Gly His Gly Thr Ala Phe Ser Arg Cys Phe Ile His						
	260	265			270	
Ala Gly Pro Tyr Asp Asn Leu Lys Asp Ile Ala Met Lys Ile Leu Gln						
	275	280			285	
Lys Glu Val Ser Thr Val Pro Ile Ile His Ser Ser Ser Glu Asp Ala						
	290	295		300		
Ser Phe Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly Ile Leu Lys						
	305	310		315		320
Cys Ile Cys Arg Tyr Phe Arg His Cys Ser Ser Ser Leu Pro Val Leu						
	325	330				335
Gln Leu Pro Ile Cys Ala Ile Pro Val Gly Thr Trp Val Pro Lys Ile						
	340	345			350	
Gly Glu Ser Asn Arg Arg Pro Leu Ala Met Leu Arg Pro Thr Ala Ser						
	355	360			365	
Leu Ala Ser Ala Leu Asn Leu Leu Val Gln Ala Gln Val Ser Ser Ile						
	370	375			380	
Pro Ile Val Asp Asp Asn Asp Ser Leu Leu Asp Ile Tyr Cys Arg Ser						
	385	390			395	400
Asp Ile Thr Ala Leu Ala Lys Asn Arg Ala Tyr Thr His Ile Asn Leu						
	405	410				415
Asp Glu Met Thr Val His Gln Ala Leu Gln Leu Gly Gln Asp Ala Tyr						
	420	425			430	
Ser Pro Tyr Glu Leu Arg Ser Gln Arg Cys Gln Met Cys Leu Arg Ser						
	435	440			445	

Asp Pro Leu His Lys Val Met Glu Arg Leu Ala Asn Pro Gly Val Arg
450 455 460

Arg Leu Val Ile Val Glu Ala Gly Ser Lys Arg Val Glu Gly Ile Val
465 470 475 480

Ser Leu Ser Asp Ile Phe Lys Phe Phe Ile Gly Gly
485 490

<210> 11
<211> 1266
<212> DNA
<213> Glycine max

<400> 11
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tctacctctt tcgtttcgac tcatcattct taataccgat ttactgggtca agaagagctt 1
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gaccatcctt ctacaaaatg gtatcgtttc agccccgcta tgggattccc atacctcaac 2
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ctttgctgga cttcttacga cttcggacta tataaatgtt atccaatatt actggcagaa 3
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cgagacggga aaagagatgg tggtcagtgt gattacacaa tatcgtatcc tgaagtttat 5
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aacttatggg gacctacaaa ccgcaaatat ggacactccg gtgatcgacg tcatacatat 6
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gatgggtcaaa cacagcattt cgagcgttcc cattgttgac aaagattcgc gagtacttaa 7
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tttgactgtg ggagaagctt tggccaatag ggcagaagac tttgccggga tttatacttg 8
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cagtgaagaa gacaggttgg attcgatctt tgacacgatt cgaaaatcta gagtgcacgc 9
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attggtggtt atagatgaag agcagcattt gaagggagtg atctctttgt cggatatattt 9
60
gcagtatgta ctctacatg gagaagacga tgattgagcc tgtccgatat tggccatgat 10
20
actacgagga tggataggcg ttgcatagcg atttggcgta caggcacaaa cctgatctca 10
80
cgggtcatta aaatggccac aaatagatgt gattgggcga tttattcata ttcgttaata 11
40
ccattttatc ggctcggact aaggataata tggcggattg gcttgtgaat attttatgga 12
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aaaaaa
66

12

<210> 12
<211> 318
<212> PRT
<213> Glycine max

<400> 12
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Asp Phe Leu Lys Arg Arg Thr Ser Tyr Asp Val Leu Pro Leu Ser Phe
20 25 30
Arg Leu Ile Ile Leu Asn Thr Asp Leu Leu Val Lys Lys Ser Leu Thr
35 40 45
Ile Leu Leu Gln Asn Gly Ile Val Ser Ala Pro Leu Trp Asp Ser His
50 55 60
Thr Ser Thr Phe Ala Gly Leu Leu Thr Thr Ser Asp Tyr Ile Asn Val
65 70 75 80
Ile Gln Tyr Tyr Trp Gln Asn Pro Glu Ala Leu Asn Gln Ile Asp Gln
85 90 95
Phe Lys Leu Ser Ser Leu Arg Asp Ile Glu Lys Ala Ile Gly Val Leu
100 105 110
Pro Leu Glu Thr Val Ser Val His Pro Ala Arg Pro Leu Tyr Asp Ala
115 120 125
Cys Arg Glu Met Leu Gln Thr Arg Ala Arg Arg Ile Pro Leu Val Asp
130 135 140
Val Asp Asp Glu Thr Gly Lys Glu Met Val Val Ser Val Ile Thr Gln
145 150 155 160
Tyr Arg Ile Leu Lys Phe Ile Ser Val Asn Val Glu Glu Thr Glu Phe
165 170 175
Leu Lys Lys Ser Val Ser Asp Ile Lys Leu Gly Thr Tyr Gly Asp Leu
180 185 190
Gln Thr Ala Asn Met Asp Thr Pro Val Ile Asp Val Ile His Met Met
195 200 205
Val Lys His Ser Ile Ser Ser Val Pro Ile Val Asp Lys Asp Ser Arg
210 215 220
Val Leu Asn Leu Phe Glu Ala Val Asp Val Ile Thr Ile Ile Lys Gly
225 230 235 240
Gly Val Tyr Asp Gly Leu Thr Leu Thr Val Gly Glu Ala Leu Ala Asn

agacaaggtc tacacccata tccgcctaga tgagatgacc attcatcagg ccttgcagct 11
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 caagttgctg ctgagctagc gaaaggcctg ttttcgttag ttccggggca agcggtgcca 13
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 gaagagctag catgcaagaa agagattgtg gagccaacat ggagttctct ctctggcttg 14
 40
 ctcttggaaca agagagtagc aaaacagatt gtaaagtttt tttccctttc gttgtgccaa 15
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 aaaaaaaaaa aa 16
 32

<210> 14
 <211> 442
 <212> PRT
 <213> Triticum aestivum

<400> 14
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 Leu Pro Pro Gly Ile Tyr Gln Tyr Lys Phe Asn Val Asp Gly Gln Trp
 20 25 30
 Arg His Asp Glu Gly Gln Pro Thr Ile Thr Gly Glu Tyr Gly Val Val
 35 40 45
 Asn Thr Leu Tyr Leu Thr Arg Glu Phe Asp His Ile Asn Thr Val Leu
 50 55 60
 Ser Pro Thr Thr Pro Gly Ser Arg Met Asp Val Asp Ser Asp Ser Phe
 65 70 75 80
 Gln Arg Met Gly Ser Leu Ser Asp Gly Ala Leu Gln Glu Gly Ser Pro
 85 90 95
 Arg Ile Ser Glu Ala Ala Ile Gln Ile Ser Arg Cys Arg Val Ala Glu
 100 105 110
 Tyr Leu Asn Ala His Thr Gly Tyr Asp Leu Leu Pro Asp Ser Gly Lys
 115 120 125
 Val Ile Ala Leu Asp Ile Asn Leu Pro Val Lys Gln Ser Phe His Ile
 130 135 140
 Leu His Glu Gln Gly Ile Pro Val Ala Pro Leu Trp Asp Ser Phe Arg
 145 150 155 160

Gly Gln Phe Val Gly Leu Leu Ser Pro Leu Asp Phe Ile Leu Ile Leu
 165 170 175
 Arg Glu Leu Glu Thr His Gly Ser Asn Leu Thr Glu Glu Gln Leu Glu
 180 185 190
 Thr His Thr Ile Ser Ala Trp Lys Glu Ala Lys Arg Gln Thr Tyr Gly
 195 200 205
 Arg Asn Asp Gly Gln Leu Arg Ser Asn Gln His Leu Val His Ala Thr
 210 215 220
 Pro Tyr Glu Ser Leu Arg Gly Ile Ala Met Lys Ile Leu Glu Thr Gly
 225 230 235 240
 Ile Ser Thr Val Pro Ile Ile Tyr Ser Ser Ser Ser Asp Gly Ser Phe
 245 250 255
 Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly Ile Leu Lys Cys Ile
 260 265 270
 Cys Arg Tyr Phe Lys Asn Ser Thr Gly Ser Leu Pro Ile Leu Asn Gln
 275 280 285
 Pro Val Cys Ser Ile Pro Leu Gly Thr Trp Val Pro Lys Ile Gly Glu
 290 295 300
 Pro Asn Gly His Pro Leu Ala Met Leu Arg Pro Asn Thr Ser Leu Ser
 305 310 315 320
 Ser Ala Leu Asn Leu Leu Val Gln Ala Gly Val Ser Ser Ile Pro Ile
 325 330 335
 Val Asp Asp Asn Asp Ser Leu Ile Asp Thr Tyr Ser Arg Ser Asp Ile
 340 345 350
 Thr Ala Leu Ala Lys Asp Lys Val Tyr Thr His Ile Arg Leu Asp Glu
 355 360 365
 Met Thr Ile His Gln Ala Leu Gln Leu Gly Gln Asp Ala Asn Ser Pro
 370 375 380
 Phe Gly Leu Phe Asn Gly Gln Arg Cys Gln Met Cys Leu Gln Ser Asp
 385 390 395 400
 Pro Leu Leu Lys Val Met Glu Arg Leu Ala Asn Pro Gly Val Arg Arg
 405 410 415
 Val Phe Ile Val Glu Ala Gly Ser Lys Arg Val Glu Gly Val Ile Ser
 420 425 430
 Leu Ser Asp Ile Phe Lys Leu Leu Leu Ser
 435 440

<210> 15

<211> 538
 <212> DNA
 <213> Zea mays

 <220>
 <221> unsure
 <222> (494)
 <223> n = A, C, G or T

 <400> 15
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 tctgtctcct gggattcacg agtacaaatt ctttgtggac ggggaatggc ggcattgatga 12
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 gcgtcaacct accatatctg gggagtttgg catagttaac acactttact tgacaaggga 18
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 atataaccaa ataaacacct tatcaagtcc aagcacacct ggaagcagga tgaacatgga 24
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 gaatttgcatt acatgctatg atttactccc agattctggc aagggttattg ccctagacat 42
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 taatttacct gtgaagcaat cattccatat tctccatgaa caggggattc ctgtagctcc 48
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 tctctgggac tcantcaaag gtcaatttgg tgggcccctt agcccaatgg atttcata 53
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<210> 16
 <211> 59
 <212> PRT
 <213> Zea mays

<220>
 <221> UNSURE
 <222> (50)
 <223> Xaa = ANY AMINO ACID

<400> 16
 Val Ser Glu Tyr Leu Asn Leu His Thr Cys Tyr Asp Leu Leu Pro Asp
 1 5 10 15

 Ser Gly Lys Val Ile Ala Leu Asp Ile Asn Leu Pro Val Lys Gln Ser
 20 25 30

 Phe His Ile Leu His Glu Gln Gly Ile Pro Val Ala Pro Leu Trp Asp
 35 40 45

 Ser Xaa Lys Gly Gln Phe Gly Gly Pro Leu Ser
 50 55

<210> 17
 <211> 542
 <212> DNA
 <213> Oryza sativa

<220>
 <221> unsure
 <222> (248)
 <223> n = A, C, G or T

<220>
 <221> unsure
 <222> (534)
 <223> n = A, C, G or T

<220>
 <221> unsure
 <222> (539)
 <223> n = A, C, G or T

<400> 17
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 gattgtcagt atgcctattg gtacatgggc accacatact ggcaaggcaa gcaatagaca 18
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 gcttagaact tcgcgaccaa gcactcctct aaattcatgc ctggatttgc tgcttgaaga 24
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 cagtgatatc atggctctag gcaagaatga tgtcacactc gtattgagct tgaacagtga 36
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 cgggtggacat ccttggagct gcaatacagt gaatggccga agacactgtc atactgctta 42
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 cacatactcc ggaggtttgg acattgtcac tcagggtgcg ggatctcttt taacaagaca 48
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 attgtgagga tatccatgag gaccataatt ccattgaaaa ttggtccaca tcanaatana 54
 0
 gg 54
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<210> 18
 <211> 58
 <212> PRT
 <213> Oryza sativa

<220>
 <221> UNSURE
 <222> (23)
 <223> Xaa = ANY AMINO ACID

<400> 18
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 1 5 10 15
 Leu Leu Glu Asp Arg Val Xaa Ser Ile Pro Ile Val Asp Asp Asn Gly
 20 25 30
 Ala Leu Leu Asp Val Tyr Ser Leu Ser Asp Ile Met Ala Leu Gly Lys

35

40

45

Asn Asp Val Thr Leu Val Leu Ser Leu Asn
 50 55

<210> 19
 <211> 498
 <212> DNA
 <213> Glycine max

<400> 19
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 tctttcgttt cgactcatca ttcttaatac cgatttactg gtcaagaaga gcttgaccat 18
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 ccttctacaa aatggatcgc ttccagcccc gctatgggat tcccatacct caacctttgc 24
 0
 tggacttctt acgacttcgg actatataaa tgttatccaa tattactggc agaatccaga 30
 0
 agccctcaat caaatagatc aattcaaatt gagtagctta agagatatcg aaaaggcaat 36
 0
 tggcgacta cctttggaga cggatcggg acatcctgcg cgacctctt acgatgcttg 42
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 tcgcgaagat gttgcaaacc cgggcccgcg gtatcccgcg gggttgatgt tgatgacgaa 48
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 gacgggaaaa gagatggt 49
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<210> 20
 <211> 122
 <212> PRT
 <213> Glycine max

<400> 20
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 Ser Tyr Asp Val Leu Pro Leu Ser Phe Arg Leu Ile Ile Leu Asn Thr
 20 25 30
 Asp Leu Leu Val Lys Lys Ser Leu Thr Ile Leu Leu Gln Asn Gly Ile
 35 40 45
 Val Ser Ala Pro Leu Trp Asp Ser His Thr Ser Thr Phe Ala Gly Leu
 50 55 60
 Leu Thr Thr Ser Asp Tyr Ile Asn Val Ile Gln Tyr Tyr Trp Gln Asn
 65 70 75 80
 Pro Glu Ala Leu Asn Gln Ile Asp Gln Phe Lys Leu Ser Ser Leu Arg
 85 90 95
 Asp Ile Glu Lys Ala Ile Gly Val Leu Pro Leu Glu Thr Val Ser Val
 100 105 110

His Pro Ala Arg Pro Leu Tyr Asp Ala Cys
 115 120

<210> 21
 <211> 514
 <212> DNA
 <213> Triticum aestivum

<220>
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 <222> (356)
 <223> n = A, C, G or T

<220>
 <221> unsure
 <222> (382)
 <223> n = A, C, G or T

<220>
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 <222> (427)
 <223> n = A, C, G or T

<220>
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 <222> (431)
 <223> n = A, C, G or T

<220>
 <221> unsure
 <222> (439)
 <223> n = A, C, G or T

<400> 21
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 ggatcggttc cgcagctggt gcatcttgca tccctttcag gaattttgaa atgtatctgt 18
 0
 agataacttca agaactccac tggtagtttg ccgattctaa accaaccagt atgctcaatt 24
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 ccgctgggggt acctgggggt ccaaaaaatg ggtgaaccaa atggcatcca ttgggtatgt 30
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 tcaataccca ttggtgggat gnataacgac cccttatttg acacataccc aagaagtgc 42
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 gctgcaactc gggcaagacc gaatcacttt gggg 51
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<210> 22
 <211> 77

<212> PRT
<213> Triticum aestivum

<400> 22

Leu Val His Ala Thr Pro Tyr Glu Ser Leu Arg Gly Ile Ala Met Lys
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Ile Leu Glu Thr Gly Ile Ser Thr Val Pro Ile Ile Tyr Ser Ser Ser
20 25 30

Ser Asp Gly Ser Phe Pro Gln Leu Leu His Leu Ala Ser Leu Ser Gly
35 40 45

Ile Leu Lys Cys Ile Cys Arg Tyr Phe Lys Asn Ser Thr Gly Ser Leu
50 55 60

Pro Ile Leu Asn Gln Pro Val Cys Ser Ile Pro Leu Gly
65 70 75